Consequently, it’s time to start monitoring pastures now and develop a plan for pasture recovery. This spring, pastures may need more recovery and growing time before cattle turnout in order to regain ‘vigor’. If possible, allow 3 to 4 inches of growth and consider reducing stocking rates by 20 to 30 percent.

Manage fertility inputs, considering both soil fertility and the probability of rain. Test the soil and apply phosphorus and potassium only if needed. Application of nitrogen will stimulate spring growth, especially in grass-based pastures. But, the level of nitrogen may depend on soil moisture. If spring rains are limited, it may be more economical to apply a modest (30-40 pounds/acre) amount of nitrogen early in the spring and assess the likelihood of moisture in later spring and summer. If moisture levels improve, an additional 30-40 pounds/acre could be applied mid-spring and possibly late summer.

Walk the pasture this spring when it begins to ‘green up’ and determine the percentage of soil covered with desirable forage vegetation. Use a ‘better than’ or ‘thinner than’ 70 percent cover as your assessment guide. If there is less than 70% ground cover, consider ‘frost seeding’ or ‘interseeding’ the drought-thinned pastures.

Frost seeding is the broadcasting of legumes or additional grass seed in late winter when the last few weeks of night-freeze and daytime-thaw aids in seed coverage. This is usually done late February to early March. Interseeding is using a drill to no-till plant legumes or grasses into an existing sod. Spring interseeding dates are mid-March through late April. Note that grasses are established more effectively with interseeding than with frost-seeding. Both frost-seeding and interseeding are more effective when the existing pasture is closely grazed to reduce early season sod competition.

In some cases, it may be necessary to completely tear up a pasture and start over with a brand new seeding. If this is the case, grazing will likely be delayed until year two, in order for the grass to get established. This creates a scenario where a producer may have to plant a summer annual to provide forages in the meantime. Bottom-line: monitor pastures now and plan ahead how you will help them recover.

(This article is adapted from material authored by Steve Barnhart, ISU Extension Forage Agronomist.)
A Word about Cover Crops
In February, the USDA Risk Management Agency released rules for insuring a crop following a cover crop.

To insure a spring crop following a cover crop you must:
- Not hay or graze or otherwise harvest the cover crop after May 10
- Kill the cover crop prior to planting the spring crop

You are not allowed to plant a spring crop into an established grass or legume. If you want to insure a spring crop, you need to have killed the cover crop (using a herbicide or tillage) before planting the spring crop. Grazing is not considered terminating the cover crop. For more details, contact your insurance agent.

When Planting Trees, Proper Watering is the Key to Success
By Margaret Murphy, ISU Extension & Outreach Horticulture Educator
Last fall, we saw a number of trees go into the winter water-stressed due to the extended dryness of the season. As a result, folks may be wondering about the health of their trees this spring. In general, well-established, hearty trees are pretty resilient. However, if you’re left wondering whether or not a tree has survived, be patient and wait until bud break. Branches that are still living will eventually show new growth emerging from the buds.

If you find that you need to replant, one crucial element to a newly planted tree’s survival is proper watering. Freshly planted trees lack the established root system needed for adequate water storage. As such, the tree relies on rain or supplemental watering and generally needs supplemental water even when we are not experiencing drought conditions.

Unfortunately, it is difficult to recommend a set schedule for watering a new tree. How often and how much to water depends on several factors including the amount of rainfall we receive and how well the site holds moisture. For the first few months, the need for watering could be as often as two to three times a week or even daily if the weather conditions are particularly hot, dry, and windy. As the tree grows, watering frequency can be reduced but the rooting area will expand.

As a rule of thumb, apply one to two gallons of water, per inch of trunk diameter, directly over the tree’s root ball. Inspect the tree and the soil moisture frequently, especially in hot, dry weather, and before you water. It’s important not to overwater as excessive irrigation can lead to root rot. You can monitor soil moisture by digging a small hole with a trowel or soil probe (keep the tool you use small to minimize root injury). Check the soil moisture in the root zone to a depth of about one foot.

To help conserve soil moisture, place two to three inches of mulch over the developing root system (usually out to the tips of the branches). Keep the mulch at least four inches away from the trunk to avoid conditions that invite decay or unwanted pests like insects and rodents. Suggested mulches include: wood chips, shredded bark or pine needles.

Lastly, fertilizing a newly planted tree is not recommended. Fertilizer may harm developing roots plus research shows that fertilization is not that effective until the tree has re-established part of its root system.

A newly planted tree needs to be checked and tended while it gets established. Typically, for plant hardiness zones 4 and 5, establishment takes one season per inch of trunk caliper. For more information on how to care for newly planted trees see ISU Extension and Outreach publication Community Tree Planting and Care Guide at www.iowadnr.gov/portals/idnr/uploads/education/tree_planting_care_guide.pdf.

Soil Moisture
By Paul Kassel, ISU Extension & Outreach Field Agronomist
The soil moisture deficit is the concern that most farmers have on their minds this spring. The current drought conditions began in mid-July 2011. The following table has the rainfall and the rainfall deficit from July 14 2011 to March 24, 2013.

<table>
<thead>
<tr>
<th>Location</th>
<th>Actual</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britt</td>
<td>28.5</td>
<td>19.4</td>
</tr>
<tr>
<td>Spencer</td>
<td>35.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Pocahontas</td>
<td>32.7</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Crop production during these drought years has been very respectable. The USDA National Ag Statistics corn and soybean yields for Hancock, Clay and Pocahontas county is listed below.

<table>
<thead>
<tr>
<th>County</th>
<th>2012 corn</th>
<th>2011 corn</th>
<th>2012 soybean</th>
<th>2011 soybean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hancock</td>
<td>143.3</td>
<td>179.8</td>
<td>40.9</td>
<td>50.3</td>
</tr>
<tr>
<td>Clay</td>
<td>170.1</td>
<td>185.4</td>
<td>49.5</td>
<td>51.9</td>
</tr>
<tr>
<td>Pocahontas</td>
<td>165.3</td>
<td>181.2</td>
<td>45.4</td>
<td>50.3</td>
</tr>
</tbody>
</table>

Subsoil moisture is measured at several locations in northwest Iowa in the fall and spring of each year. Three of those locations are listed as examples in table 3. This data shows that subsoil moisture increased from 3.8 to 4.3 inches at these sites in 2011/2012.

Precipitation for the November 2012 to mid-March 2013 time frame was about 4.0 inches – which is about 1.0 inch less than last year. Additional rainfall will be needed in late March and early April of this year to achieve the level of spring subsoil moisture experienced last year.

<table>
<thead>
<tr>
<th>Location</th>
<th>Gain since Fall 2011</th>
<th>Spring 4/23/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dickinson</td>
<td>1.4</td>
<td>5.7</td>
</tr>
<tr>
<td>Clay</td>
<td>5.0</td>
<td>8.8</td>
</tr>
<tr>
<td>Pocahontas</td>
<td>3.3</td>
<td>7.2</td>
</tr>
</tbody>
</table>
Subsoil moisture levels for the fall of 2012 were, in general, less than those in the fall of 2011. The fall 2012 subsoil moisture levels for those same three locations are listed below.

Table 4. Fall 2012

<table>
<thead>
<tr>
<th>Location</th>
<th>Inches, Plant Available Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dickinson</td>
<td>3.9</td>
</tr>
<tr>
<td>Clay</td>
<td>5.8</td>
</tr>
<tr>
<td>Pocahontas</td>
<td>3.2</td>
</tr>
</tbody>
</table>

One concern about the 2013 season is the depth of the moisture deficit in the soil profile. There are good indications that the 2012 corn and soybean crop accessed soil moisture well below the expected five foot rooting depth. Therefore, our reserve moisture that saved us last summer is quite low. This could be a huge concern if spring rains do not re-charge the subsoil below the top two or three foot of the profile.

Expected rainfall from April 1 to June 1 is about 6.0 - 7.0 inches. Moisture use by corn and soybean crops is very low in the early part of the growing season. Therefore, April to May rainfall can contribute a great deal to soil moisture reserves. However, if this normal rainfall occurs, it will go a long way to alleviating the drought conditions.

The current La Nina/El Nino situation is considered neutral. A neutral La Nina/El Nino situation often produces near normal early season rainfall, moderate summer air temperatures and a dry late season conditions.

### Drought of 2012

Water restrictions remain for many counties in Southwestern Iowa. Several drought seminars have been offered with the focus on depending strategies for pork producers should corn supplies be restricted this Spring, Summer and Fall. The positives of the 2012 corn crop has been the low incidence of Aflatoxins and the unexpected normal to high bushel test weights. Test weights have been reported as high as 63 lb/bu in different regions of the state. Corn yields were positive as well for some farms, due to the scattered timely rains for them this past summer. Recordings of the August 2012 Drought Response for Swine Conferences are found at Iowa Pork Industry Center websites: [www.ipic.iastate.edu](http://www.ipic.iastate.edu)

### Benchmarking Production

The Benchmarking Production Records spreadsheet (Excel Template) is available at the Iowa Pork Industry Center website ([www.ipic.iastate.edu](http://www.ipic.iastate.edu)) for producers who are looking for an easy one-page method to get performance numbers. Included is the ability to producers to establish their own production database by emailing each of their closeouts to Matt Swantek (mswantek@iastate.edu) or Dave Stender (dstender@iastate.edu). Performance summaries may then be requested for their review and to help make management and production decisions.

### Show Feeds

Feed costs for show animals may be dramatically higher this year. Corn has been averaging over $7.00/bu and Soybean meal and other ingredients have been tracking higher this year. Corn has been averaging over $7.00/bu and Soybean meal and other ingredients have been tracking higher as well. If one is thinking about mixing their own show feed, remember to consider the equipment needed, ingredient composition and targeted nutrient levels for a successful rate of gain, feed efficiency and body composition. In addition, consider how many pounds per batch is needed to make a properly mixed and resulting proper nutrient levels within that mixed batch of feed. Consider the cost/benefit between programs before making any changes.

### Pork Quality Assurance

This June the National Pork Board will be rolling out the new PQAPLUS program and includes updates concerning the pig movement and transport. Certification of trainers will be commencing in May and June preparing for the changes in the PQAPLUS program.

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**Swine Regional Activities and Website Resources**

*By Matt Swantek, ISU Extension & Outreach Swine Program Specialist*

**Regional Swine Conferences** were held in Carroll, Sheldon, Nashua, and Iowa City the last week of February. Lee Schulz (ISU Livestock Economist) updated the attendees on “Livestock & Grain Outlooks”, Phil Granger (ISU Assistant Professor, CVS) on Porcine Respiratory and Enteric Disease Diagnostics, and the Swine Field Specialist covered means and rationales to consider if corn supplies are restricted; feed management and technologies; and how feed programs influence the fertilizer value of manure. Focuses of the papers are the factors that may affect feed efficiency outcomes such as environment, health, equipment, particle size, and dietary ingredients. Recordings from the conference are on the Iowa Pork Producers Association website: [http://www.iowapork.org/ProducerResources/811/Seminarsandconferences.aspx](http://www.iowapork.org/ProducerResources/811/Seminarsandconferences.aspx)

These complete papers and others are located at the website: [www.swinefeedefficiency.com/index.html](http://www.swinefeedefficiency.com/index.html)

- Influence of Particle Size
- Particle Size Testing Methodology
- Influence of Pelleting
- Influence of Temperature
- Impact of Feeder Design and Management
Events at ISU Extension-Lyon County

UPCOMING PROGRAMS - Call 712-472-2576 to confirm dates and times. Thanks!

Commercial Pesticide Applicators Training - 2013
- Oct 16 - 9:00 am - Roadside, Forest & Aquatic Pest Mgmt
- Oct 24 - 9:00 am - Mosquito & Public Health Pest Mgmt
- Nov 6 - 1:30 pm - Ornamental & Turfgrass
- Nov 13 - 9:00 am - Commercial Pesticide Applicator
- Dec 4 - 9:00 am - Pest Control Operators
- TBA - Aerial Applicators

Private Pesticide Applicator Training - 2012-2013
- 'last chance training' Apr 9, 2013 - 7:00 pm - Building A, NCC, Sheldon
- 'last chance webcast' Apr 15, 2013 - 9:00 am - Osceola County Extension, Sibley

Private Pesticide Applicator Testing - 2013
- 10:00 am - 2:00 pm - Pesticide Bureau - (515) 281-8591
  http://www.iowaagriculture.gov/Pesticide/pesticidetesting.asp
- May 6, 2013 - O'Brien County Extension, Primghar (712) 957-5045
- May 13, 2013 - Woodbury County Extension, Sioux City (712) 267-2157
- June 3, 2013 - O'Brien County Extension, Primghar (712) 957-5045
- June 10, 2013 - Woodbury County Extension, Sioux City (712) 267-2157

Commercial Manure Applicator Training - 2013 - RESHOW
- Apr 11 - 9:00 am - Extension Office, Rock Rapids

Confinement Site Manure Applicator Training - 2013
- Apr 11 - 1:30 pm - Extension Office, Rock Rapids

PUBLICATIONS

Cash Rental Rate Survey - 2012
  http://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-10.pdf

Custom Rate Survey - 2013
  http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

Farmer's Tax Guides - 2012

4-H Important Dates:
- Apr 12, 13 & 15 - Derby Swine Weigh Ins
- May 15, 2013 - Livestock ID's Due
- June 1, 2013 - Rabbit ID's Due
- June 25, 2013 - Livestock Fair Entries Due
- July 22-25, 2013 - Lyon County Fair
- Aug 8-18, 2013 - Iowa State Fair
- Sept 7-15, 2013 - Clay County Fair
Fertilizing the Garden

By: Christina Lloyd, ISU Extension and Outreach Agriculture and Natural Resource Intern

I once heard somewhere that the seed has its highest potential when it is still in the package. Once it’s placed in the ground then it is subject to the conditions of the environment. One of our jobs as gardeners is to make sure that individual aspects of the environment, that we have the ability to manage, meet the needs of the seed and work to keep it at its full potential. That is why the soil the seed is placed in is something all gardeners should be concerned about.

Every plant is a little bit different from the next but they all need certain nutrients that can only be obtained from the soil. Nitrogen (N), phosphorus (P), and potassium (K) are the three main macronutrients required by plant life and these are the main focus for most gardeners. Even though soil already has a supply of these nutrients, we need to make sure that there is enough, but not too much, of each to ensure that the plant is able to function at its highest capability.

A soil analysis is a good first step to determine whether soil amendment is necessary. It’s recommended that gardeners get their soil tested every three to four years. When sampling your garden soil you should collect and mix together at least 10 samples that are roughly the same size from several different locations in your garden. If the soil is visibly different from one section of the garden to the next then separate samples should be sent in. The depth of the sample should be around six inches and can be taken using a soil probe, soil auger, spade or garden trowel. For detailed information on how to take a soil sample, see Iowa State University Extension and Outreach publication Soil Sample Information Sheet for Horticultural Crops, ST-11 (www.extension.iastate.edu/Publications/ST11.pdf).

Once you get the information from your soil sample you will be able to determine how to properly fertilize your garden. You can fertilize using organic fertilizers or you can use processed fertilizers. Each have their own benefits though most of the time you may end up using a bit of both to really provide a well-balanced diet for the plants and the decomposers in the soil.

Organic fertilizers come from natural materials such as manure, compost, mulches, leaves, fish emulsions and blood meal. They are usually slow-released and can vary in nutrient content. Exact nutrient levels are hard to determine. However, organic fertilizers build and stabilize soil structure and can improve the soil’s holding capacity for both water and nutrients.

Processed fertilizers are usually manufactured or refined from natural ingredients and usually consist of ammonium sulfate, processed urea, and/or potassium chloride. The nutrients are immediately available to the plant and the nutrient content is high. It’s easy to apply and can be used to meet the garden’s particular nutrient needs. However, you can run the risk of over fertilizing.

There are several effective ways to apply fertilizer. The most common is to broadcast or spread fertilizer over the growing area before planting and work it into the soil by either a rototiller or spade. Fertilizer can also be banded, which is to apply a uniform band below and to the side of the plant seed or row. However, if the fertilizer gets too close to the seed it can cause seed damage. Side dressing is a method sometimes used during the growing season. Fertilizer is applied to the side of the crop row keeping it several inches away from the plants. It is not recommended to side dress if moisture levels are below normal. Also, some gardeners apply a starter fertilizer at transplanting time. For example, a weak solution of phosphorus can be applied after transplanting. This consists of two tablespoons of a high-phosphorus fertilizer dissolved in one gallon of water and applied at a rate of one cup per plant.

I hope this helps you make each seed you plant this season reach its full potential! For any questions, please feel free to contact me at my email clloyd@iastate.edu, by phone at (712) 737-4230 or through your local County Extension office. Additional information was provided by the Iowa State University Extension and Outreach article Garden Soil Management (2005), the Montana State University Extension article Home Garden Soil Testing and Fertilizer Guidelines (2010), the South Dakota State University article Fertilizing Gardens in South Dakota accessed March 27, 2013, and the South Dakota Cooperative Extension Service article Vegetable Gardening accessed March 27, 2013.
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Hotlines Available For All
Iowa Concern (800-447-1985)
Farm On (877-BFC-1999)
Teen Line (800-443-8336)
BETS OFF (800-BETS-OFF) (800-238-7633)

Hotlines Available to Iowa Residents Only
Families Answer Line (800-262-3804)
Hortline (515) 294-3108
Iowa Healthy Families (800-369-2229)
PORKLine (800-808-7675)